

the bits afterwards. This would require some simple modifications of the decryption process.

11. Please add the following new paragraph as the last paragraph in the “Detailed Description of the Invention” section immediately prior to the claims section:

In the foregoing Detailed Description, various features are grouped together in various example embodiments for ease of understanding. The many features and advantages of the present invention are apparent from the detailed specification, and, thus, it is intended by the appended claims to cover all such features and advantages of the described apparatus that follow the true spirit and scope of the invention. Furthermore, since numerous modifications and changes will readily occur to those of skill in the art, it is not desired to limit the invention to the exact construction, operation and example embodiments described herein. Accordingly, other embodiments are within the scope of the appended claims.

***In the Abstract***

Please replace the paragraph under “ABSTRACT” with the following replacement paragraph:

A method for enhancing the security of a quantum key distribution (QKD) system having QKD stations Alice and Bob ~~is disclosed~~. The method includes encrypting key bits generated by a true random number generator (TRNG) and sent to a polarization or phase modulator to encode weak optical pulses as qubits to be shared between Alice and Bob. Key bit encryption is achieved by using a shared password and a stream cipher. Bob obtains at least a subset of the original key bits used by Alice by utilizing the same stream cipher and the shared password.